

REMARKS

This application has been reviewed in light of the final Office Action mailed on February 18, 2010. Claims 1-26 are pending in the application with Claims 1, 18, 22 and 23 being in independent form. Claims 1, 18, 22 and 23 have been amended herein. It is believed that no new matter has been introduced into the claims.

In the final Office Action, Claims 1-10, 17-21, and 23-26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Non-patent literature “Reliable Multicast Protocol with a Representative Acknowledgment Scheme for Wireless Systems” to Inoue et al. (Inoue et al.) and further in view of U.S. Patent Application Publication No. 2004/0128454 to Altahan et al. (Altahan et al.) and further in view of U.S. Patent Application Publication No. 2002/0133615 to Satran et al. (Satran et al.); Claims 11-12 and 15-16 are rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Inoue et al., Altahan et al. and Satran et al., and further in view of U.S. Patent Application Publication No. 2003/0207696 to Willenegger et al. (Willenegger et al.); Claim 13 is rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Inoue et al., Altahan et al. and Satran et al., and further in view of U.S. Patent No. 6,044,069 to Wan (Wan); Claim 14 is rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Inoue et al., Altahan et al., Satran et al. and Wan, and further in view of Willenegger et al; and Claim 22 is rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Inoue et al., Altahan et al., Satran et al. and further in view of U.S. Patent No. 6,392,993 to Hamilton et al. (Hamilton et al.).

It is respectfully submitted that Claims 1-26 are patentable over Inoue et al., Altahan et al., Willenegger et al., Wan, Satran et al., and Hamilton et al. for at least the following reasons.

Inoue et al. is directed to a representative acknowledgment scheme for reliable wireless multicast communications. The proposed protocol carries out retransmissions in the datalink layer within the wireless region, and, according to Inoue et al., retransmissions do not affect the traffic in the wired region. The representative acknowledgment scheme employs both positive acknowledgment (ACK) and negative acknowledgment (NACK) to achieve multicast transmissions and reduces the number of responses to be returned by forming groups of stations in the cell. One of the members in a group, called a representative station, returns a response for a received data frame while the others return a NACK if necessary.

The Examiner acknowledges that Inoue et al. is silent on the claim language of “wherein the confirmation message relates to one of a successful and unsuccessful decoding of the data after initiation of decoding of the data by the at least one second receiving station.” The Examiner relies on Altahan et al. to address the deficiencies of Inoue et al. with respect to independent Claims 1, 18, 22 and 23.

The Examiner states Altahan et al. discloses that a mobile station receives data blocks and a receiver may decode the data blocks and may report the successful or unsuccessful decoding of the blocks to a base station, using an ARQ scheme. The Examiner further states that when a received data block is not decoded successfully, a NACK message may be sent to the base station, requesting retransmission of the data block. The Examiner also states that conversely, when a received data block is successfully decoded, ACK message may be sent to the base station.

There is no disclosure or suggestion by Altahan et al. of more than one receiver, let alone, whether the additional receiver(s) determines whether to transmit its own message, as required by

Applicant's Claims 1, 18 and 23, or the transmitting station ignoring another message received from another receiver, as required by Applicant's Claim 22.

The Examiner acknowledges that Inoue et al. and Altahan et al. are silent on the claim language of transmitting the confirmation message from the transmitting station to at least one third receiving station of the plurality of first receiving stations. The Examiner relies on Satran et al. to address the deficiencies of Inoue et al. and Altahan et al. with respect to independent Claims 1, 18, 22 and 23. The Examiner states that Satran et al. discloses a receiving station which sends a confirmation message back to the transmitting station, at which point the transmitting station immediately multicasts the confirmation message to the other receiving stations.

In particular, Satran et al. is directed to a multicasting system where content is multicast from a sender to a plurality of receivers over a data network. According to Satran et al., each receiver independently determines whether it is missing elements or packets of the content. Receivers having missing content each initiate a random timer. The receiver which has the shortest random interval **unicasts a negative acknowledgement (NACK)** to the sender; the sender immediately multicasts the negative acknowledgement to the other receivers. All other receivers having the same missing packet thereupon **suppress** their own negative acknowledgements as to that packet. A repair transmission is then multicast by the sender to all receivers. The negative acknowledgement which is unicast by the receiver and then multicast by the sender to all receivers relates to an unsuccessful receipt of a data packet by the receiver.

In contrast, independent Claims 1, 18 and 23 provide that each receiving station makes its own determination whether to transmit a confirmation message to the transmitting station. In particular, Claim 1 states that each subset of the plurality of first receiving stations includes a

predefined feedback phase that enables each subset to determine when to transmit the confirmation message to the other subsets. In other words, the feedback received from a receiving station is mirrored back to the other receiving stations, such that each receiving station is informed about the feedback from the other receiving stations. Additionally, each receiving station is a subset of a plurality of receiving stations.

Claims 18 and 23 have been amended to recite similar features. Support for the claim amendments to Claims 1, 18 and 23 can be found at least at paragraphs [0057] and [0060] of Applicant's published patent application (US 2006/0291410).

Additionally, independent Claim 22 provides that "each subset of the plurality of receiving stations includes a predefined feedback phase that enables each subset to determine when to transmit the confirmation message to the other subsets." That is, Claim 22 provides that the feedback received from a receiving station is mirrored back to the other receiving stations, such that each receiving station is informed about the feedback from the other receiving stations. Support for the claim amendments to Claim 22 can be found at least at paragraphs [0057] and [0060] of Applicant's published patent application (US 2006/0291410).

In contrast, Satran et al. discloses that the sender or transmitting station receives only one NACK acknowledgement from one receiver, since the other receivers suppress their own negative acknowledgement. Therefore, Satran et al., does not teach and/or suggest the features of the amended independent Claims as recited herein.

Accordingly, the withdrawal of the rejection under 35 U.S.C. §103(a) with respect to independent Claims 1, 18, 22 and 23 and allowance thereof are respectfully requested.

Dependent Claims 2-17, 19-21 and 24-26 depend from one of independent Claims 1, 18 and 23 and therefore include the claim limitations of their respective independent claims.

Further, dependent Claims 2-17, 19-21 and 24-26 recite additional patentable features.

Accordingly, for at least the same reasons given above for the allowance of Claims 1, 18 and 23, the withdrawal of the rejection under 35 U.S.C. §103(a) with respect to dependent Claims 2-17, 19-21 and 24-26 over at least one of Inoue et al., Altahan et al., Willenegger et al., Wan, Satran et al., and Hamilton et al., and allowance thereof are respectfully requested.

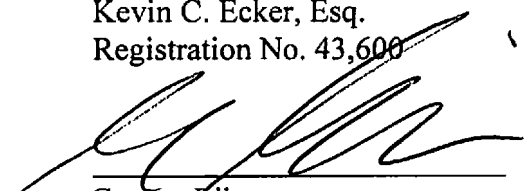
In view of the foregoing remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-26, are believed to be in condition for allowance.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call the undersigned.

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